Conclusion: Combined approach of surgical resection and the use of the investigational drug posaconazole was key to successfully treat the highly lethal invasive pulmonary mucormycosis in a heart transplant patient requiring continuous immunosuppression.

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Vaccine-induced Immunity in Children after Orthotopic Liver Transplantation in Switzerland: A Twelve Year Review

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Introduction & Background: Infections represent a significant threat in solid-organ recipients. However, a certain number of infections can be prevented by immunizing patients before their transplantation. The aim of this study is to determine the immunization levels of children undergoing transplantation and to assess their capacity to maintain protective levels after surgery.
Methods: Charts of 44 children transplanted with cadaveric livers between 1990 and 2002 at the Children's Hospital of Geneva were reviewed. Vaccination types and schedules were compared to current recommendations and antibody responses to certain antigens were established pre- and post-transplantation.
Results: Only 43% of patients were up to date for diphtheria, tetanus, acellular pertussis, and polio vaccines at the pre-transplant visit, while 44% of children older than 12 months had received their required measles-mumps-rubella shots. Six out of 44 children had received at least one dose of hepatitis B vaccine, while only 2 patients had received at least one dose of hepatitis A vaccine. After immunization, and one year after transplantation, only 14/44 patients had detectable anti-HBs antibodies and 7/18 had anti-HAV antibodies. Varicella antibodies were undetectable in 15/19 patients immunized prior to transplantation.
Conclusions: This study highlights the need to enforce vaccination before transplantation, follow-up on vaccine-induced immunity, and adapt vaccination schedules after liver transplantation in children, especially for non-live vaccines which are universally recommended in this population.

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Respiratory Syncytial Virus Infections in Lung Transplant Patients: Different Therapeutic Approaches Linked to the Degree of Immunosuppression

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Background & Methods: *Respiratory syncytial virus* (RSV) infections in lung transplant patients (LTP) have been associated with mortality rates between 10% and 70%. Immunoglobulines (IG), ribavirine and pavilizumab have been suggested for both therapeutic and pre-emptive therapeutic approaches, however they are limited by toxicity concerns and high costs. In order to design a decisional treatment tree we describe four cases of proven lower respiratory tract RSV infections in lung transplant patients illustrating possible different clinical approaches.
Results: *Case 1:* A 54-year-old female LTP was hospitalized with cough, bronchitis and rhinorrhea. The bronchoalveolar lavage (BAL) grew 105 CFU/ml of *S. aureus* and *S. marcescens* suggesting a bacterial pneumonia responding well to cefepime and a transient reduction in immunosuppression. Subsequently a positive PCR result for RSV was obtained from the same BAL. She evolved favourably without a therapy against RSV. *Case 2:* A 28-year-old male LTP was hospitalized for fever and "common cold". Pulmonary functions were clearly worsened compared to two weeks before. The BAL results suggested a viral infection that was treated by a reduction in immunosuppression. After one week the pulmonary functions and clinical symptoms had improved. A positive PCR for RSV was obtained from the original BAL. A specific treatment against RSV was not necessary. *Case 3:* A 48-year-old female LTP was hospitalized for rhinitis, cough and increased sputum production. A lung biopsy revealed an acute A3 rejection. The BAL yielded a positive viral culture and PCR for RSV. IG associated with ribavirine and pavilizumab were administered before the treatment of the rejection by anti-thymoglobulines. He evolved favourably without significant side effect of the anti-RSV treatment. *Case 4:* A 62-year-old lung transplant patient was hospitalized for rhinorrhea, fever, myalgia, cough, severe wheezing and ground glass opacities in the middle lobe. Withdrawal of mycophenolate was followed by a significant spirometric and clinical improvement. Secondarily the BAL yielded a positive PCR result for RSV. He evolved favourably without specific anti-RSV treatment.